1. A switch fabric network for creating a packet encapsulating a protocol comprising:

    a protocol encapsulation interface identifier;

    packet field data;

    a packet header using said protocol encapsulation interface identifier and packet field

    data; and

    a first node adapted to create said packet header and to transmit said packet header to

    a second node.

2. A system of claim 1 wherein said packet field data is comprised of a bit count and a

    turn pool;

3. A system of claim 1 wherein said packet field data is comprised of a hop count and a

    multisource index.

4. A system of claim 1 wherein said packet field data is comprised of a credit length, a

    bit count, a turn pool, an operation, a PID index, an MTU, and an EUI.

5. A system in a switch fabric network for creating a packet encapsulating a protocol

    comprising:

    a packet type identifier;

    packet field data;

    a packet header using said packet type identifier and packet field data; and

    a first node adapted to create said packet header and to transmit said packet header to

    a second node.

32

6. A system according to claim 5 wherein said packet field data is comprised of an offset, a pipe index, a CRC, a field indicating dwords requested, a skip identifier; a drop identifier, a request type, and a transaction number.

7. A system according to claim 5 wherein said packet field is comprised of a sequence number, a completion type, a CRC, a payload dwords, an end identifier, and a transaction number.

8. A system according to claim 5 wherein said packet field is comprised of an offset, a pipe index, a CRC, a payload dwords, a skip identifier; a drop identifier; a write type, and a transaction number.

9. A system according to claim 5 wherein said packet field is comprised of a decomposition sequence number, a completion type, a CRC, payload dwords, an end identifier, and a transaction number.

10. A system according to claim 5 wherein said packet field is comprised of a decomposition sequence number, a pipe index, a CRC, a first payload dwords, an end identifier, a second payload dwords, a drop identifier, a sequenced write type, and a transaction number.

11. A computer-readable medium having stored thereon a data structure representing a packet comprising:

a first field comprising data representing a protocol encapsulation interface;

a field set comprising

a second field comprising data representing a credit length;

33

a third field comprising data representing a traffic class;

a fourth field representing a bypass queue;

a fifth field representing a credit type;

a sixth field representing a bit count; and

a seventh field representing a turn pool.

12. A computer-readable medium having stored thereon a data structure comprising:

a first field comprising data representing a protocol encapsulation interface;

a second field comprising data representing a credit length;

a third field comprising data representing a traffic class;

a fourth field representing a hop count;

a fifth field representing a multicast source index;

a sixth field representing a bit count; and

a seventh field representing a turn pool.